

Rule 312 Amendment
U.S.S.N. 10/088,576
Page No. 2

IN THE SPECIFICATION:

Please delete the sentence regarding FIG. 4A on page 6 (bottom of page). There is no Figure 4A.

Please amend Paragraph 1 on Page 7 as follows:

FIG. 5 is a side view of the pressure box of Figure 1, showing one embodiment of the pressure box inlet pressure seal element; and

Please amend Paragraph 2 on Page 7 as follows:

FIG. 6 is a side view of the pressure box of Figure 1, showing one embodiment of the pressure box outlet pressure seal[.]; and

Please amend Paragraph 2 on Page 8 as follows:

Referring to FIG. 1, a number of the essential components of the preferred pressure box ~~1~~ 401 used in the pressure laminator of the present invention 400 are shown in cross-section. As illustrated, two rotatable belts, top belt ~~2~~ 402 and bottom belt ~~[4]~~ 404, mounted on a plurality of support rollers (top – ~~110, 120, 130~~ 410, 420, 430; bottom – ~~210, 220, 230~~ 510, 520, 530), are pulled through the pressure box ~~1~~ 401, between the upper section ~~12~~ 412 and the lower section ~~14~~ 414, entering at the inlet end ~~16~~ 416 and exiting at the outlet end ~~18~~ 418, by their respective drive rollers ~~150~~ 550 (top) and ~~250~~ 650 (bottom).

Please amend Paragraph 3 on Page 8 as follows:

Rule 312 Amendment
 U.S.S.N. 10/088,576
 Page No. 3

Alignment of the two rotating belts 2 402 and [4] 404, is maintained by an electric alignment system comprising an alignment carriage 300 100, alignment pivot 310 110, electric alignment servo 320 120 and electric alignment eyes 330 130. If either of the belts moves out of alignment, the electric eye 330 130 detects the same and activates the alignment servo, which causes the belt to be adjusted as necessary by lateral movement of the alignment carriage 300 100.

Please amend Paragraph 4 on Page 8 extending to Page 9 as follows:

In the illustrated embodiment, eight spaced apart radiant heat bars (~~10A, 10B, 10C, 10D ... 10H~~) (310A, 310B, 310C, 310D ... 310H) are shown at the inlet end ~~16 416~~ of pressure box ~~1 401~~ and eight spaced apart cooling bars (~~20A, 20B, 20C, 20D ... 20H~~) (320A, 320B, 320C, 320D ... 320H) are shown at the outlet end ~~18 418~~ of pressure box ~~1 401~~. Four of the heat bars are rigidly mounted in the lower section ~~14 414~~ of the pressure box ~~1 401~~, namely heat bars ~~10A, 10C, 10E and 10G~~ 310A, 310C, 310E and 310G. The other four radiant heat bars (~~10B, 10D, 10F and 10H~~) (310B, 310D, 310F and 310H) are flexibly mounted such that they float above the upper belt, permitting materials of varied thickness to pass there under. Four of the cooling bars are rigidly mounted in the lower section ~~14 414~~ of the pressure box ~~1 401~~, namely cooling bars ~~20A, 20C, 20E and 20G~~ 320A, 320C, 320E and 320G. The other four cooling bars (~~20B, 20D, 20F and 20H~~) (320B, 320D, 320F and 320H) are flexibly mounted such that they float above the upper belt, permitting materials of varied thickness to pass there under.

Please amend Paragraph 3 on Page 10 extending to Page 11 as follows:

Figure 2 illustrates in cross-section, the end view of pressure box ~~1 401~~, showing in particular the air pressure feed line ~~400 600~~, and the preferred points of contact thereof ~~402 602~~ and ~~404 604~~ with the upper section ~~12 412~~ and lower section ~~14 414~~ of the

Rule 312 Amendment
U.S.S.N. 10/088,576
Page No. 4

pressure box, respectively. The pressure box is advantageously made out of metal, such as aluminum (from 2 to 5 inches thick) and is held together by a plurality of threaded steel rods and nuts ~~406 606~~ and ~~408 608~~. As shown in ~~Fig. 2~~ Figs. 2 and 4, the heating and cooling bars located in the lower section ~~14 414~~ of the pressure box are locked in place at each end by a fixed bracket ~~410 820~~. The heating and cooling bars located in the upper section ~~12 412~~ of the pressure box ride on a pin bracket mount ~~412 800/812~~, which allows upward motion of the bars, while gravity keeps the bars resting on the upper belt. A plurality of cooling water lines, inlet ~~414 614~~ and outlet ~~416 616~~ are also shown in ~~this illustration~~ Fig. 2. The electrical heating wires (not shown) are provided in a manner similar to the water lines.

Please amend Paragraph 1 on Page 11 as follows:

Figure 3 illustrates a top view of the interior of the upper section ~~12 412~~ of the pressure box ~~1 401~~, showing the currently preferred arrangement of the upper heating bars (~~10B, 10D, 10F and 10H~~) (310B, 310D, 310F and 310H) and cooling bars (~~20B, 20D, 20F and 20H~~) (320B, 320D, 320F and 320H). The pressurized box ~~1 401~~ is held together by steel bars 500 mounted to the threaded rods ~~406 606~~ shown in the four corners. Not shown in this illustration are the nuts that thread thereon. The sides ~~2 402~~ of the housing or frame, to which the steel bars and all rollers and controls are mounted, are also shown in this drawing.

Please amend Paragraph 2 on Page 11 as follows:

Figure 4 illustrates, the pin bracket ~~412~~ for the upper section, vertically displaceable, heating and cooling bars. As illustrated, the pin bracket comprises a steel mounting bracket ~~600 800~~, fixed at one end to the aluminum side wall of the upper section ~~12 412~~ of the pressure box. A slot (not shown) is provided near the opposite end

Rule 312 Amendment
U.S.S.N. 10/088,576
Page No. 5

of bracket ~~600~~ 800, through which a post ~~610~~ 810 rides. The post ~~610~~ 810 is mounted to the top of the heating or cooling bar at one end and capped at the opposite end ~~612~~ 812, thereby limiting the vertical displacement distance of the heating and cooling bars. The bracket for the lower section heating and cooling bars ~~620~~ 820 is also a steel bracket, but it is rigidly attached to both the heating and cooling bars and the aluminum side wall of the lower section ~~14~~ 414 of the pressure box.

Please amend Paragraph 3 on Page 11 extending into Page 12 as follows:

A side pressure seal ~~650~~ is also illustrated in FIG. 4 ~~and illustrated in greater detail in Figure 4A.~~ This seal is formed from a high temper curved aluminum slat 700 (e.g., 0.008 x 1 3/8"- Venetian blind) sandwiched between 2 mil PTFE (Teflon®) tape 710 on the upper side and 10 mil ultrahigh molecular weight polyethylene tape 720 on the bottom side. The seal is held in place by a steel bracket ~~670~~ 870.

Please amend Paragraph 1 on Page 12 as follows:

As illustrated in Figures 5 and 6, it has been discovered that the aluminum pressure seal taught in Figure 4A 4 can be simplified, such that the side and inlet pressure seals consists predominantly of the curved aluminum slat ~~850~~ 700 as previously described. The ultrahigh molecular weight polyethylene tape can be omitted and the PTFE tape can be omitted, except in the corners of the pressure box, where the tapes still prove useful. This improved side seal and inlet pressure seal is illustrated in Figure 5.

Please amend Paragraph 2 on Page 12 as follows:

The exit pressure seal is shown in Figure 6. In addition to the curved aluminum slat 700, the belt side of the aluminum slat is coated with 5 mil PTFE (Teflon®)

Rule 312 Amendment
U.S.S.N. 10/088,576
Page No. 6

fiberglass cloth ~~800~~ 900, which extends beyond the end of the aluminum seal and mounts to the inside of the pressure box frame. This exit seal design keeps the drive belt from binding on the aluminum slat.

REMAINDER OF PAGE INTENTIONALLY BLANK